REMARKS

We request that in light of the file being lost in the US PTO, that the examination and issuance of the application be expedited forthwith, without need for a formal petition. Further, as the Palm system appears to correctly reflect the mailing date of the First Office Action, which was responded to by the applicant within 3-months we further request a refund of the applicants extension fee of $ 55.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully asked that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. Alternatively should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned.

Respectfully submitted:

by: _____ on 3/4/2004

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REMARKS

The last Office Action dated March 21, 2002 has been carefully considered.

It is noted that Claims 1 was rejected under 35 U.S.C. § 103 as being unpatentable over Germaise et al. (U.S. Pat. No. 5, 678, 295) in view of Okuyama (U.S. Pat. No. 3,125,084). Applicant respectfully seeks to traverse the rejection in that the Examiner has not established a prima facie case of obviousness with respect to claim 1. The examiner must take into account the explicit requirements of the claim to support a prima facie case of obviousness *In Re Fine* 837 F.2d 1071, 5 USPQ2d 1596 (Fed Circ. 1988), *In Re Evanega*, 829 F.2d 1110, 4 USPQ2d 1249 (Fed. Circ. 1987).

The claimed invention is directed to the thermochromic display having claim limitations neither disclosed nor suggested by the references cited by the Examiner. More specifically the combination claimed in Claim 1 is limited to "an integral thermochromatic display **fixedly printed** on the outside wall of a ceramic cup".

Germais et al. deploy electronic sensing means in combination with **an *electronic display* device** to provide a visual or audible indication of beverage temperature. The device requires batteries, means for activation of switch, and is therefore much more complicated as well as expensive to manufacture. Furthermore, the electronics must be hermetically sealed from water as the vessel is subject to regular washing.

As the thermal display of the instant invention is formed from a printable ink, it can be applied to the outside of a cup or mug without the necessity of providing a liquid containing means as disclosed in Okuyama. Accordingly, it has significant advantages over the prior art methods for sensing and indicating the temperature of the liquid

contained within a vessel. As none of the cited references disclose a printable thermochromic material that changes from opaque to transparent within a temperature range, their is no motivation within the references to use such a material on the beverage holding cup of the instant invention.

Further, assuming in arguendo, that the examiner has established a prima facie case of obvious, the references are not properly combinable by their own teachings. The fluid containment vessel disclosed in Okuyama must be molded or fabricated in a manner that provides a means for containing a liquid paraffin, which undergoes a transition from clear to opaque, in the wall of the vessel. Okuyama discloses that a plastic baby bottle is readily molded or post fabricated by thermoforming to have a plurality of wells and different locations on the periphery of the outer wall of the containment vessel. Moreover, the wall thickness of the plastic baby bottle provides for good thermal contact between the liquid beverage and the thermochromic material taught by Okuyama. The multiple cavities taught in Okayama are not readily fabricated in a ceramic vessel, and such method are disparaged by Germais et al., *infra*, particularly at column 2, line 63.

" fluid trapped an internal cavity is generally considered problematic in construction of a mug or cup".

Germais et al, while directed to an open mouth drinking vessel possessing a handle further for the consumption of hot beverages, generally teaches away from thermochromic indicating means as having poor visibility (column 3, line 12) and because of the requirement for fabrication of duel wall vessel. Applicant believes, therefore that Germaise et al. teaches away from using a thermochromic material as a thermal sensing and indicating method of the instant invention, and also teaches away from combining any other reference having a disclosure of a thermo-optic material that

undergoes a transparent to liquid transition, particularly at column 2, line 63

"the means of indicating the relevant temperature of the beverage held relies upon the principle that fluid, gas or liquid, expands with temperature. This provides a crude indication of temperature, as in the case the whistle or color change, and **fluid trapped in an internal cavity is generally considered problematic in construction of a mug or cup**".

A reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must be considered. *See Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986).

Additionally, applicant believes that Germaise et al. teaches a much more complex invention than the invention of the present application, by focusing on complex embodiments such as that claimed in the Germaise et al. patent. Thus, applicant believes that Germaise et al. teaches away from the simplicity of the present invention, which provides a solution to the problem of highly visible temperature indicia with a minimum of manufacturing steps. *See In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994) (prior art reference "appears to teach away from the selection of" the claimed composition "by focusing on more complex examples"). The fact that a simple solution has escaped other workers in the art is some evidence that it was **not obvious** to a person of ordinary skill in the art. *See In re Shelby*, 311 F.2d 807, 810, 136 USPQ 220 (CCPA 1963):

> Appellant's claimed invention departs from the prior art in the direction of simplicity rather than in the direction of complexity, as the thermochromic display is readily applied to any regular vessel suitable for receiving printing or laminating to its outer surface. The simplicity of this useful invention is, in retrospect, some evidence that it was not obvious to a

> person of ordinary skill in the art. In re Osplack, 39 CCPA 932, 195 F.2d 921, 93 USPQ 306. . . . While it is admittedly simple, it has escaped the other workers in this crowded art. We do not think the simplicity of appellant's construction should deprive him of his right to a patent thereon. Expanded Metal Co. v. Bradford, 214 U.S. 366.

Therefore it is respectfully submitted that Germais et al. is not relevant to the present invention.

Applicant has added new Claims 2 through 8. It is respectfully submitted that the new claims 2-8 are clearly patentably distinguishable over the prior art, since it is believed that the construction defined in these claims differs essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the references. New claim 2 claims a fluid containment vessel having printed indicia, which is not disclosed in any of the cited patents. Applicant is aware of prior uses of thermochromic ink on beverage containers that change from opaque to transparent to reveal decorative and non-functional features. In claim 2 the temperature indicating mark is concealed by the overlaying by the thermochromic ink until it becomes transparent. This limitation has inherent support in the specification in that the preferred material for forming the thermochromic display is described as being applied as a thermochromic printed overlay in the 2nd paragraph of the Detailed Description.

New claim 3 –8 are dependent from claim 2, and hence should be allowable over the prior art of record. The additional limitations in claims 2-8 find support in the specification, drawings and are also found in claim 1.

Applicant believes that combining the references discussed above would not lead to the claimed invention, in that the present invention does not merely employ the known substitution of equivalents but rather employs a new, non-obvious combination to accomplish the objectives set out in the present application.

As for the proposed combination of references cited by the examiner, it is respectfully submitted that since none of the references in the combination teaches the distinctive features of applicant's invention as defined now in the new claims 2 through 8, any hypothetical construction produced by this combination would not lead to applicant's invention.

It is respectfully submitted that the combined teachings of the references applied by the Examiner fail to disclose or even suggest the subject matter of the claims at issue. That a prior art reference could be modified to form the claimed structure does not supply a suggestion to do so. "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Laskowski*, 871 F.2d 115, 10 USPQ2d 1397 (Fed. Cir. 1989).

In view of these considerations, it is respectfully submitted that the rejection of the original claims should be considered as no longer tenable with respect to the new claims 2-8 and should be withdrawn. The new claims 2-8 should be considered as patentably distinguishing over the art and should be allowed.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully asked that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. Alternatively should the Examiner feel that a

personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned.

Respectfully submitted:

by: _____ on 7/15/2002

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Office Action Summary

Application No.	Applicant(s)
09/768,560	Roncl
Examiner	**Art Unit**
Gail Verbitsky	2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1 is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
18) ☐ Interview Summary (PTO-413) Paper No(s). _____
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other:

Notice of References Cited

Applicant/Patent	Application/Control No.	
Ronci	09/768,560	
Examiner	Art Unit	Page 1 of 2
Gail Verbitsky	2859	

U.S. PATENT DOCUMENTS

	Document Number Country Code-Number-Kind Code	Date MM-YYYY[1]	Name	Classification[2]	
A	3,135,118	06.02.64	Zlobin	374	157
B	6324963B1	12.04.01	Cirasole	374	157
C	5,588,747	12.31.96	Blevins	374	157
D	5,282,683	02.01.94	Brett	374	157
E	4,555,040	11.26.85	Butenschon	374	157
F	3,782,195	01.01.74	Meek et al.	374	157
G	5,786,578	07.28.98	Christy et al.	219	720
H	5,867,848	02.09.99	Ort	4	661
I	5,809,590	09.22.98	Williams et al.	4	661
J	3,125,984	03.24.64	Okuyama	—	—
K	4,878,588	11.07.89	Ephraim	374	150
L	4,919,983	04.24.90	Fremin	428.	35.7
M	5,678,925	10.21.97	Garmaise et al.	374	157

FOREIGN PATENT DOCUMENTS

	Document Number Country Code-Number-Kind Code	Date MM-YYYY[1]	Country	Name	Classification[2]	
N						
O						
P						
Q						
R						
S						
T						

NON-PATENT DOCUMENTS

	Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
U	
V	
W	
X	

* A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a). [1] Dates in MM-YYYY format are publication dates. [2] Classifications may be U.S. or foreign.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garmaise et al. (U.S. 5678925) [hereinafter Garmaise] in view of Okuyama (U.S. 3125984).

Garmaise discloses a temperature sensor (display) fixedly attached on the outside wall of a beverage mug and being integral with the mug.

Garmaise does not disclose the particular display claimed by applicant and the mug being made of ceramics. Garmaise does not disclose that the display has a plurality of segments.

Okuyama a thermochromic thermometer (display/ sensor to be attached to a container to be exposed to an elevatcd temperature, the thermometer is opaque at ambient temperature and becomes transparent when it is exposed to the elevated temperature revealing different segments indicating temperature that they are being exposed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the temperature display disclosed by Garmaise with a thermochromic display, as taught by Okuyama, because both of them are alternate types of

temperature sensing devices which will perform the same function if one is replaced with the other.

With respect to the particular material to make the mug, i.e., ceramics, the particular material to make the mug, absent any criticality, is only considered to be the "optimum" or "preferred" material that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide for the mug disclosed by Garmaise since this is very well known type of material commonly used to make mugs and cups, and since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. *In re Leshin*, 125 USPQ 416.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices.

4. Any inquiry concerning this communication should be directed to Examiner Verbitsky who can be reached at (703) 306-5473, Monday through Friday, 7:30 to 4:00.

Application/Control Number: 09/768,560

Art Unit: 2859

Any inquiry of general nature should be directed to the Group receptionist whose telephonenumber is (703) 308-0956.

GKV

March 21, 2002

Diego Gutierrez

Supervisory Patent Examiner

TC 2800

Notice of References Cited

Applicant/Patent	Application/Control No.
Ronci	09/768,660
Examiner	**Art Unit**
Gail Verbitsky	2859

U.S. PATENT DOCUMENTS

	Document Number Country Code-Number-Kind Code	Date MM-YYYY[1]	Name	Classification[2]	
A	5,720,555	02.24.98	Elele	374	157
B	6260414B1	07.17.01	Brown et al.	73	295
C					
D					
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FOREIGN PATENT DOCUMENTS

	Document Number Country Code-Number-Kind Code	Date MM-YYYY[1]	Country	Name	Classification[2]	
N						
O						
P						
Q						
R						
S						
T						

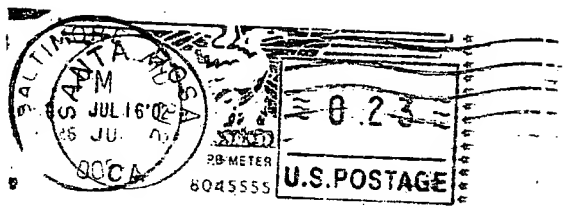
NON-PATENT DOCUMENTS

	Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
U	
V	
W	
X	

*A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a).

[1]Dates in MM-YYYY format are publication dates.

[2]Classifications may be U.S. or foreign.



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3554

534-7558

RECEIVED IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: M. Ronci

Title of Invention: TEMPERATURE INDICATING BEVERAGE CONTAINER

Serial No.: 09/768,560

Filed: January 25, 2001 Docket No. 106.01

(1) Transmittal Form (with ~~duplicate if charging deposit account~~)
(1) Fee Transmittal Form

(1) Power of Attorney

(9) Response to Office Action and Amendment

(2) Information Disclosure Citation

(9) Copies of cited references

~~(1) Assignment of Invention~~

(1) Credit Card Payment Form for Extention Fee

(1) Petition for Extension of Time